Before the
**Federal Communications Commission**
Washington, D.C. 20554

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| In the Matter of | ) | |
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| Dynetics, Inc. Request For Limited Waiver | ) | WT Docket No. 19-39 |
| of Temporary Freeze on Non-Federal | ) | |
| Applications in the 3100-3550 MHz Band | ) | |

# REPLY COMMENTS

**DYNETICS, INC.**

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Dated: June 24, 2019

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## SUMMARY

Dynetics' Requests and the supporting comments filed with the Commission collectively demonstrate – ***without any substantive opposition whatsoever*** - that United States homeland security policy demands reliable long-term protection of critical infrastructure operations including the continued long-term deployment of Commission-licensed Part 90 radiolocation technology within 3.1-3.3 GHz. Georgia Power currently has around twelve facilities with Dynetics radar systems and it plans to install at least five more systems by the end of 2019, and to add Dynetics radar at six or seven facilities per year over the next five years. Alabama Power currently has around 20 facilities with Dynetics radar operational with 11 additional sites planned for completion by the end of 2020. In addition, nearly 100 additional entities engaged with Dynetics are planning to license Part 90 Radiolocation Service products within 3.1-3.3 GHz once they reach the installation or "operational" phase for such sites.

Dynetics' Requests and the supporting comments filed with the Commission collectively demonstrate – ***without any substantive opposition whatsoever*** - that continuing the Freeze in its current form increases the risk of potentially devastating attacks on the nation's critical infrastructure facilities, in addition to subjecting critical infrastructure operators to increased risk of significant enforcement action and/or penalties. Even temporary loss of this spectrum presents a clear and present danger to critical infrastructure protection. Within the last year, Georgia Power detected and responded to intruders at two different facilities where the Dynetics radar was operational. In just the first week of June, Dynetics radar detected and responded to two intrusions over high masonry walls surrounding a critical substation. Likewise, Alabama Power has detected intruders at three different facilities over the last year where the Dynetics radar was operational.

In addition, Dynetics' Requests and the supporting comments filed with the Commission collectively demonstrate – ***without any substantive opposition whatsoever*** - that neither critical infrastructure operators nor Dynetics have reasonable alternatives to address embedded long-term licensing requirements that involve the deliberate selection and long-term deployment of radiolocation systems within 3.1-3.3 GHz. With respect to Dynetics' GroundAware® technology and the spectrum on which it operates, the selection of the 3.1-3.3 GHz range was the result of years of careful experimentation, testing, planning, and implementation, and any suggestion that the subject technology/spectrum is subject to the whimsical "preference" of Dynetics is uninformed at best. The range of 3.1-3.3 GHz was selected because of the specific propagation and atmospheric conditions unique to this frequency range that result in fewer multipath propagation problems and fewer effects of clutter from rain, fog, and snow, as compared to higher frequency bands. Given the years of dedicated research and development underlying the creation of this particular technology and the selection of this particular frequency range, followed by coordinated and successful proof-of-concept testing for critical infrastructure protection, and in light of the ongoing incorporation of this technology into the long-term physical protection plans of the critical infrastructure community, and given that the risks to the nation's critical infrastructure from domestic and foreign threats are likely to only increase in the coming years, any "alternatives" that might be suggested at this late date which involve settling for suboptimal spectrum cannot be considered "reasonable" and must be rejected. There may be uses of RF in general where requiring use of suboptimal spectrum is reasonable, but protection of critical structure and homeland security is not one of those uses.

Critical infrastructure operators have no alternative but to comply with the regulations and guidelines requiring the development of long-term physical security plans, and they have no alternative other than to carefully investigate and select radiolocation technologies well in advance of deployment. At the risk of attack and significant enforcement penalties, critical infrastructure operators therefore have no alternative other than to consider superior radiolocation technologies capable of sustained long-term Commission licensing, rather than those subject to only temporary grants. Georgia Power reports that it "has not seen an intrusion detection technology as effective as [Dynetics' 3.1-3.3 GHz] ground-based radar system." Similarly, Eco Technologies reports that the GroundAware® radar "is a perfect tool…"

The Commission can and should grant the relief requested by Dynetics based on the independent grounds established above, pursuant to 47 C.F.R. §§ 1.3, 1.41 and 1.925(b)(3)(ii), because - in view of the unique/unusual factual circumstances related to the urgent need for continued long-term protection of our nation's critical infrastructure - continuation of the Freeze in its current form would have potentially devastating (well beyond "inequitable" or "unduly burdensome") impact to the security of such critical infrastructure facilities and therefore our nation's homeland security. In addition, there are no reasonable alternatives for either (i) critical infrastructure operators whose RF licensing requirements must be incorporated into long-term physical security plans and therefore must be consistently and reliably available on a long-term basis; or (ii) Dynetics which has, after many years of painstaking research and development, developed a superior radiolocation technology in an optimal spectrum range.

The relief requested by Dynetics can also be granted on additional independent grounds pursuant to Sections 1.3, 1.41 and 1.925(b)(3)(i) because the underlying purpose of the Freeze (to "maintain a spectral environment in a band that is under active consideration for possible alternative use") would not be undermined by permitting the limited-scope applications defined in the Requests. All current available and reliable evidence demonstrates that, while NTIA was indeed initially charged with reviewing the entire 3100-3550 MHz band, NTIA is in fact no longer actively considering the 3100-3450 MHz segment for alternative use. To avoid any ambiguity, in a meeting held after the imposition of the Freeze between Dynetics, undersigned counsel, and NTIA staff directly involved in the preparation of the report due in March 2020, NTIA orally confirmed to Dynetics that – with respect to the 3100-3550 MHz band – no additional frequencies were identified for alternative use beyond the limited 3450-3550 MHz frequency range previously identified in February 2018, and NTIA is not considering the 3100-3450 MHz range for alternative use at this point for inclusion in the report due in March 2020.

In addition, no commenters substantively support their conclusory statements that grant of the requests would either impede or foreclose future commercial deployment, and in fact the very limited relief requested would have no such impact and is supported by ample precedent.

Finally, the reliance of opposing commenters on procedural items only serve to magnify the dearth of substantive grounds contained in their comments. Regarding the claim that the Request For Modification Of Freeze was untimely, this argument is contradicted by applicable precedent, as (i) the Commission has clear authority to act on that informal request for action pursuant to Section 1.41, and (ii) there are no time limitations within which such requests must be filed, even when the filing of a petition for reconsideration was previously an option, and the Commission routinely exercises its authority to consider such informal requests in situations such as the one presented here.

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## REPLY COMMENTS

Dynetics, Inc. ("Dynetics"), by its attorneys, hereby submits these Reply Comments pursuant to the Commission's Public Notice released May 28, 2019.[1] the large majority of comments submitted to the Commission with respect to Dynetics' Requests[2] unequivocally support the relief requested by Dynetics.[3] On the other hand, the non-substantive comments of the only 2 opposing commenters[4] wholly ignore the public interest and homeland security implications underlying the Requests and the specific and intentional narrowly-tailored nature of the relief sought and – at the expense of the long-term protection of the 16 DHS-defined critical infrastructure sectors including Communications, Defense Industrial Base, Energy, Financial Services; Healthcare and Public Health; Nuclear Reactors Materials, and Transportation Systems

[1] Wireless Telecommunications Bureau Seeks Comment on Dynetics, Inc. Request for Modification, Waiver of Temporary Freeze on Non-Federal Applications in the 3100-3550 MHz Band, Public Notice, WT Docket No. 19-39, DA 19-478 (rel. May 28, 2019).

[2] The "Requests" are collectively comprised of Dynetics' "Request for Modification of Freeze" (filed May 17, 2019) (Erratum filed June 18, 2019) and "Request for Limited Waiver" (filed May 17, 2019) (Erratum filed June 18, 2019).

[3] See Comments of Southern Company Services, Inc. ("Southern") filed June 12, 2019. As explained in Southern's Comments (Page 2), Southern is a wholly-owned subsidiary service company of Southern Company, a holding company based in Atlanta, Georgia. Southern Company owns three electric utility subsidiaries – Alabama Power Company, Georgia Power Company, and Mississippi Power Company – that provide electric service to approximately 4.1 million customers in a service territory of more than 100,000 square miles; See also Comments of Eco Technologies Inc. ("Eco Technologies") filed June 17, 2019; Comments of The Saltex Group filed June 17, 2019; Comments of Van Cleve & Associates, Inc. filed June 17, 2019; Comments of BlackSage filed June 17, 2019; Comments of Peak Industries, Inc. filed June 18, 2019; Comments of Del Deason filed June 18, 2019; Comments of Walter Messa Jr. filed June 19, 2019; Comments of Hawaii Electric filed June 20, 2019.

[4] See Comments of The Wireless Innovation Forum (WInnForum) filed June 12, 2019; Comments of CTIA filed June 12, 2019. WInnForum and CTIA are referred to collectively herein as the "opposing commenters".

– the opposing commenters simply ask the Commission to champion the financial interests of their members while relying on naked conclusions, hyperbole, and erroneous procedural gambits.

The limited relief requested by Dynetics and supported by the majority of commenters will not in fact impede 5G deployment as claimed by the opposing commenters, and literally no specific evidence has been provided to support such conclusory claims. Similarly, allowing the limited relief sought by Dynetics will not disrupt the spectrum stability required for continued analysis within the 3 GHz band. The limited relief requested by Dynetics has been deliberately and very narrowly-tailored to permit only limited-scope applications within confined geographic areas by a limited class of applicants and fully complies with applicable legal and procedural requirements, and grant of the Requests will support this nation's long-term homeland security priorities. Accordingly, the Commission can and should expeditiously grant the Requests.

## I. No Substantive Opposition Has Been Lodged Against Dynetics' Requests

As demonstrated below, the opposing commenters notably failed to lodge any substantive objections to the Requests and therefore the relief requested by Dynetics should be granted.

### A. No Commenter Substantively Opposed The Demonstration of Unique and Unusual Factual Circumstances Requiring The Continued Availability of Limited-Scope Applications Within 3.1-3.3 GHz

Dynetics' Requests and the supporting comments filed with the Commission collectively demonstrate – ***without any substantive opposition whatsoever*** - that United States homeland security policy demands reliable long-term protection of critical infrastructure operations including the continued long-term deployment of Commission-licensed Part 90 radiolocation technology within 3.1-3.3 GHz. Specifically, long-standing policy of the United States requires that federal agencies support private sector development of technologies and systems capable of providing reliable and effective security, surveillance and deterrence of threats to critical

infrastructure.[5] In furtherance of such policies, federal and public sector agencies within each of the 16 critical infrastructure sectors have implemented guidelines requiring the development, approval, and implementation of security plans for critical infrastructure sites, and critical infrastructure operators are subject to enforcement action for failing to comply with these rules.[6]

In order to ensure compliance with these long-term sector-specific requirements, critical infrastructure operators must be able to rely on the continued ability to obtain Commission-issued non-temporary licenses authorizing the operation of state-of-the-art radiolocation technologies. In response to these requirements, manufacturers such as Dynetics have developed targeted radiolocation technologies that have, for years, been actively licensed and deployed by critical infrastructure operators within for the purpose of infrastructure surveillance and protection. In addition to the 3.1-3.3 GHz facilities manufactured by Dynetics that have already been licensed and deployed, this radiolocation technology is continuing to be incorporated into the future long-term plans of critical infrastructure operators who need to ensure the continued and ready availability of long-term Commission licenses as additional deployments occur.[7] As demonstrated in Southern's Comments "Georgia Power currently has around twelve facilities with Dynetics radar systems, including two sites that are subject to CIP-014-2 standards. Georgia Power has plans to install at least five more systems by the end of 2019, including one at a site subject to CIP-014-2 standards. The utility also plans to add Dynetics radar at six or seven facilities per year over the next five years. Alabama Power currently has around 20 facilities with

[5] See, e.g., Request For Limited Waiver at 2-3; Request For Modification Of Freeze at 4-5.

[6] See, e.g., Request For Limited Waiver at 4-5; Request For Modification Of Freeze at 5-6; Comments of Southern at 2-3.

[7] See Comments of The Saltex Group at 1; Comments of Van Cleve & Associates, Inc. at 1; Comments of BlackSage filed at 1; Comments of Peak Industries, Inc. at 1; Comments of Del Deason at 1; Comments of Walter Messa Jr. at 1; Comments of Hawaii Electric at 1.

Dynetics radar operational with 11 additional sites planned for completion by the end of 2020."[8] In addition, nearly 100 additional entities engaged with Dynetics are planning to license Part 90 Radiolocation Service products within 3.1-3.3 GHz once they reach the installation or "operational" phase for such sites.[9] **No substantive comments opposed the above showings and the Commission therefore should accept these facts as established and fully supportive of the legal standards governing Dynetics' Requests.**

### B. No Commenter Substantively Opposed The Fact That Continuation of the Freeze Would Be Potentially Devastating (Well Beyond "Inequitable" or "Unduly Burdensome") To Critical Infrastructure Protection, and that Critical Infrastructure Operators and Dynetics Have No Reasonable Alternatives

Dynetics' Requests and the supporting comments filed with the Commission collectively demonstrate – ***without any substantive opposition whatsoever*** - that continuing the Freeze in its current form increases the risk of potentially devastating attacks on the nation's critical infrastructure facilities, in addition to subjecting critical infrastructure operators to increased risk of significant enforcement action and/or penalties. In addition, Dynetics' Requests and the supporting comments filed with the Commission collectively demonstrate – ***without any substantive opposition whatsoever*** - that neither critical infrastructure operators nor Dynetics have reasonable alternatives to address embedded long-term licensing requirements that involve the deliberate selection and long-term deployment of radiolocation systems within 3.1-3.3 GHz.

#### 1. Devastating Impact Well Beyond Inequitable or Unduly Burdensome

Following 9-11, United States homeland security policy confirmed that "there is critical infrastructure so vital that its incapacitation, exploitation, or destruction, through terrorist attack,

[8] Comments of Southern at 6.

[9] See, e.g., Request For Limited Waiver at 9; Request For Modification Of Freeze at 10-11.

could have a debilitating effect on security and economic well-being."[10] The deployment of radiolocation systems in the 3.1-3.3 GHz range is a necessary and proven weapon to deter and detect threats aimed at critical infrastructure.[11] Southern's comments dramatically demonstrate that "even temporary loss of this spectrum" presents a clear and present danger to critical infrastructure protection,[12] and that the inability to continue filing applications for long-term radiolocation licenses within 3.1-3.3 GHz jeopardizes the ability of critical infrastructure operators to "promptly and comprehensively improve physical security at [their] facilities."[13] Indeed, Southern confirms that by way of example:

> "Dynetics radar systems have already demonstrated their value in protecting Southern's facilities. Within the last year, Georgia Power detected and responded to intruders at two different facilities where the Dynetics radar was operational. In just the first week of this month (June 2019), Dynetics radar detected and responded to two intrusions over high masonry walls surrounding a critical substation. Likewise, Alabama Power has detected intruders at three different facilities over the last year where the Dynetics radar was operational."[14]

Given that these attempted intrusions were deterred in *just the past year*, and that critical infrastructure operators will require continued and targeted long-term licensing within 3.1-3.3 GHz to adequately ensure RF coverage to their properties, the evidence is clear that the Freeze (as currently fashioned) imposes an unintended but potentially devastating impact to the reliable protection of our nation's critical infrastructure. **No substantive comments opposed the above showings and the Commission therefore should accept these facts as established and fully supportive of the legal standards governing Dynetics' Requests.**

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[10] See, e.g., Request For Limited Waiver at 2-3, citing Homeland Security Presidential Directive/Hspd-7, "December 17, 2003, Section 4 ("HSPD-7") (accessed at: https://www.dhs.gov/homeland-security-presidential-directive-7).

[11] See Comments of The Saltex Group at 1; Comments of Van Cleve & Associates, Inc. at 1; Comments of BlackSage at 1; Comments of Peak Industries, Inc. at 1; Comments of Del Deason at 1; Comments of Walter Messa Jr. at 1; Comments of Comments of Hawaii Electric at 1.

[12] See also Comments of Eco Technologies at 1 (confirming that continuation of the Freeze "will have a serious negative outcome for customers").

[13] Southern Comments at 6.

### 2. No Reasonable Alternatives

The record substantially supports the fact that neither critical infrastructure operators nor Dynetics have reasonable alternatives with respect to the development, selection and deployment of radiolocation systems within 3.1-3.3 GHz to address critical infrastructure protection, and any decision by the Commission which would in effect require the abandonment of over a decade of successful manufacturer/operator coordination should be avoided.

#### a. No Reasonable Alternatives re: Dynetics' Selection of Spectrum

With respect to Dynetics' GroundAware® technology and the spectrum on which it operates, the selection of the 3.1-3.3 GHz range was the result of years of careful experimentation, testing, planning, and implementation, and any suggestion that the subject technology/spectrum is subject to the whimsical "preference" of Dynetics is uninformed at best.[15] Dynetics' development of the radar product and basic system functionality required years of technical prototyping, evaluation, testing, and extensive design/algorithm refinement to detect and classify multiple types of critical infrastructure threats. In May 2014, substantive positive input regarding the appropriateness of the 3.1-3.3 GHz range for the contemplated use cases was received directly from Commission staff during active product development. Product development included substantial Part 5-licensed experimentation which helped Dynetics fine-tune the system's performance in preparation for introduction to the market. These deliberate and methodical efforts were in full accord with the Commission's experimental rules, which – as explained by the Commission – were designed "to benefit the development of new technologies, expedite their introduction to the marketplace, and unleash the full power of innovators to keep

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[14] Southern Comments at 5.

[15] CTIA's unsupported and cavalier remarks that Dynetics "should pursue its business opportunities using other Part 90 spectrum" and that Dynetics merely "prefers" the 3.1-3.3 GHz range are not substantive arguments and should be dismissed out of hand by the Commission.

the United States at the forefront of the communications industry…."[16] Ultimately, the range of 3.1-3.3 GHz was selected because of the specific propagation and atmospheric conditions unique to this frequency range that result in fewer multipath propagation problems and fewer effects of clutter from rain, fog, and snow, as compared to higher frequency bands.[17]

As a result of these long-term developmental efforts and discussions with the Commission staff, Dynetics optimized the radar performance based on the advantageous propagation characteristics of the 3.1-3.3 GHz range and reasonably concluded that Part 90 licensing of this radar product would be readily available. Subsequent real-world field deployment of these Commission-licensed systems has substantiated that this technology provides superior performance compared to other available technologies, in the context of critical infrastructure protection. For example, Southern explains in its comments that it "considered a system built around fixed video cameras and video analytics, but this solution would require many more cameras, and the cameras would only cover the perimeter of each property. A video analytics system would only respond when an intruder crosses in front of a camera; thus, it would not provide early warning of persons or vehicles approaching the property or offer an assessment of likely intent. Southern also considered fence sensors. However, and similar to video analytics, fence sensors would only detect intrusions at the perimeter of the property and would not provide notification of persons or vehicles approaching the property. Fence sensors are also prone to false alarms."[18] Given the years of dedicated research and development underlying the creation of this particular technology and the selection of this

[16] *In the Matter of Promoting Expanded Opportunities for Radio Experimentation and Market Trials under Part 5 of the Commission's Rules and Streamlining Other Related Rules - 2006 Biennial Review of Telecommunications Regulations – Part 2 Administered by the Office of Engineering and Technology (OET)*, ET Docket Nos. 10-236 and 06-155, Report and Order, p.2 (2013).

[17] See Request For Limited Waiver at 6; Request For Modification Of Freeze at 8.

[18] See Southern's Comments at 4-5.

particular frequency range, followed by coordinated and successful proof-of-concept testing for critical infrastructure protection, and in light of the ongoing incorporation of this technology into the long-term physical protection plans of the critical infrastructure community, and given that the risks to the nation's critical infrastructure from domestic and foreign threats are likely to only increase in the coming years, any "alternatives" that might be suggested at this late date which involve settling for suboptimal spectrum cannot be considered "reasonable" and must be rejected. There may be uses of RF in general where requiring use of suboptimal spectrum is reasonable, but protection of critical structure and homeland security is not one of those uses. **No substantive comments opposed the above showings and the Commission therefore should accept these facts as established and fully supportive of the legal standards governing Dynetics' Requests.**

**b. No Reasonable Alternatives re: Long-Term Licensing Requirements**

The record further establishes that the embedded long-term Commission licensing requirements of critical infrastructure operators requires a sustained and uninterrupted commitment to functionally superior radiolocation spectrum over a period of many years. This long-term consistent approach is not subject to the discretion of the critical infrastructure community, rather it is mandated by sector-specific regulations and guidelines.[19]

[19] See Southern's Comments at 2-3 ("Because of increasing threats to the nation's critical electric infrastructure over the last several years, FERC and NERC have taken steps to promote enhanced physical security at critical facilities to help maintain reliability of the nation's bulk electric system. On November 20, 2014, FERC approved a new Critical Infrastructure Protection ("CIP") standard, "CIP-014-1 – Physical Security," which was developed by NERC in response to a March 7, 2014, FERC order directing the development of a standard that addresses physical security threats and vulnerabilities. The standard was later revised as "CIP-014-2" and became effective in October 2015. CIP-014-2 requires each transmission system operator to periodically identify critical assets, evaluate potential threats to and vulnerabilities of those assets, and "develop and implement a documented physical security plan" that addresses these vulnerabilities. Physical security plans must be designed to "deter, detect, delay, assess, communicate, and respond to potential physical threats and vulnerabilities identified during the evaluation [of those assets]."The physical security plan also must present a "timeline for executing the physical security enhancements and modifications specified in the physical security plan.") (footnotes omitted).

For critical infrastructure operators, the selection and deployment of radiolocation systems "require long lead times for planning, licensing, installation, testing, and integration with existing systems."[20] Therefore, selection of an appropriate system in an appropriate frequency range is the end-result of careful investigation and planning. Indeed, the record reflects that "Georgia Power and Alabama Power spent over one year identifying and evaluating different radar systems that could be used at critical facilities before selecting the GroundAware® technology developed by Dynetics."[21] Functionally, critical infrastructure operators choosing to deploy systems such as the GroundAware® system enjoy tremendous advantages with respect to the protection of their facilities. As the record reflects, "[t]he Manager of Infrastructure Protection, Corporate Security, for Georgia Power has reported that in several decades of experience in law enforcement and corporate security he has not seen an intrusion detection technology as effective as this ground-based radar system."[22] Similarly, Eco Technologies reports that the GroundAware® radar "is a perfect tool…due to the Radar Fidelity and ability to categorize targets in real time."[23]

Critical infrastructure operators have no alternative but to comply with the regulations and guidelines requiring the development of long-term physical security plans, and they have no alternative other than to carefully investigate and select radiolocation technologies well in advance of deployment. At the risk of attack and significant enforcement penalties, critical infrastructure operators therefore have no alternative other than to consider radiolocation technologies capable of sustained long-term Commission licensing, rather than those subject to only temporary grants. In light of the fact that Dynetics has committed itself over the course of

[20] Southern Comments at 6.

[21] Southern Comments at 4.

[22] Southern Comments at 5.

[23] See Eco Technologies Comments at 1.

many years to develop a technology in a frequency range (3.1-3.3 GHz) which provides substantial functional advantages compared to other spectrum options and which is being increasingly incorporated into the long-term physical security plans of critical infrastructure plans, and because the Commission is charged with the responsibility of supporting the mandate to protect the 16 DHS-defined critical infrastructure sectors,[24] there is no reasonable alternative in this case other than to grant the Requests and permit limited-scope non-temporary applications for the purpose of uninterrupted critical infrastructure protection. **No substantive comments opposed the above showings and the Commission therefore should accept these facts as established and fully supportive of the legal standards governing Dynetics' Requests.**

**NOTE:**

The Commission can and should grant the relief requested by Dynetics based on the independent grounds established above, pursuant to 47 C.F.R. §§ 1.3, 1.41 and 1.925(b)(3)(ii), because - in view of the unique/unusual factual circumstances related to the urgent need for continued long-term protection of our nation's critical infrastructure - continuation of the Freeze in its current form would have potentially devastating (well beyond "inequitable" or "unduly burdensome") impact to the security of such critical infrastructure facilities and therefore our nation's homeland security. In addition, there are no reasonable alternatives for either (i) critical infrastructure operators whose RF licensing requirements must be incorporated into long-term physical security plans and therefore must be consistently and reliably available on a long-term basis; or (ii) Dynetics which has, after many years of painstaking research and development, developed a superior radiolocation technology in an optimal spectrum range.

[24] See National Infrastructure Protection Plan (NIPP) 2013: Partnering for Critical Infrastructure Security and Resilience, United States Department of Homeland Security (accessed at https://www.dhs.gov/sites/default/files/publications/national-infrastructure-protection-plan-2013-508.pdf) (the "NIPP 2013"); and "Communications Sector-Specific Plan - An Annex to the NIPP 2013", United States Department of Homeland Security (2015) (accessed at: https://www.dhs.gov/sites/default/files/publications/nipp-ssp-communications-2015-508.pdf)

### C. No Commenter Substantively Demonstrated That NTIA Is Currently Actively Considering the 3100-3450 MHz Range For Alternative Use, And In Fact All Available Current And Reliable Evidence Demonstrates That NTIA Is Not

As specified above, the Commission can and should grant the relief requested by Dynetics based on the independent grounds established above pursuant to Sections 1.3, 1.41 and 1.925(b)(3)(ii),.[25] However, as addressed below such relief can also be granted on the additional independent grounds pursuant to Section 1.925(b)(3)(i)[26] because the underlying purpose of the Freeze (to "maintain a spectral environment ***in a band that is under active consideration*** for possible alternative use"[27]) would not be undermined by permitting the limited-scope applications defined in the Requests.

The opposing commenters' reliance on either the scope of NTIA's original charge[28] or outdated materials[29] is inapposite and does not substantively address the actual facts related to the scope of NTIA's *current active review*. In that regard, all current available and reliable evidence demonstrates that, while NTIA was indeed initially charged with reviewing the entire 3100-3550 MHz band, NTIA is in fact no longer actively considering the 3100-3450 MHz segment for alternative use. To avoid any ambiguity, in a meeting held after the imposition of the Freeze between Dynetics, undersigned counsel, and NTIA staff directly involved in the preparation of the report due in March 2020, NTIA orally confirmed to Dynetics that – with respect to the 3100-3550 MHz band – no additional frequencies were identified for alternative use beyond the limited 3450-3550 MHz frequency range previously identified in February 2018,[30] and NTIA is

[25] See 47 C.F.R. §§ 1.3, 1.41 and 1.925(b)(3)(ii).

[26] See 47 C.F.R. §§ 1.3, 1.41 and 1.925(b)(3)(i).

[27] *Temporary Freeze on Non-Federal Applications in the 3100-3550 MHz Band*, WT Docket No. 19-39 (DA 19-105), p. 2 (Rel. February 22, 2019).

[28] See CTIA Comments at 6.

[29] See WInnForum Comments at 3.

[30] "NTIA Identifies 3450-3550 MHz for Study as Potential Band for Wireless Broadband Use", David J. Redl (Feb. 26, 2018).

not considering the 3100-3450 MHz range for alternative use at this point for inclusion in the report due in March 2020. Dynetics appreciates the incredible workload of NTIA as it prepares its report for the March 2020 deadline, and that NTIA's focus on completing its report in time for this deadline as well as other considerations may very well prohibit NTIA from formally announcing the status of its current actual review. However, in light of the very important homeland security-related issues presented to the Commission in this case, the lack of formal confirmation is not, and must not be considered, dispositive as to these separate and independent grounds for relief. Indeed, with respect to these separate and independent grounds for relief addressed in this Section I(C), even informal confirmation[31] of the status of NTIA's "active consideration" is important and relevant, and warrants grant of the requested relief pursuant to the separate and independent grounds contained at 47 C.F.R. §1.925(b)(3)(i) because the scope of NTIA's "active consideration" was the Commission's express underlying rationale for extending the Freeze throughout the 3100-3550 MHz range. In addition, the only other reliable and current documentary evidence[32] as well as CTIA's own recent filings to the Commission,[33]

[31] In its ex parte letter dated June 5, 2019, Dynetics requested that the Commission coordinate with NTIA staff to confirm the status of NTIA's current active review.

[32] See "NTIA Identifies 3450-3550 MHz for Study as Potential Band for Wireless Broadband Use", David J. Redl (Feb. 26, 2018). Even within the last month, the White House Office of Science and Technology Policy repeatedly confirmed that the higher 3 GHz segments are the real focus of 3 GHz sharing from a standpoint of practical global deployment ("Globally, the bands most referenced for initial 5G deployments lie in the 3.3–4.2 GHz range, as well as in the millimeter wave bands. That is why, in the United States, mid-band spectrum—especially the 3.55–3.7 GHz CBRS band and the 3.47–4.2 GHz C band—are in such high demand by 5G stakeholders.") "Emerging Technologies And Their Expected Impact On Non-Federal Spectrum Demand", White House Office of Science and Technology Policy, p. 6, 65 (May 2019) ("White House Report").

[33] See Letter from Scott K. Bergmann, CTIA, to Marlene H. Dortch, Secretary, FCC, filed Apr. 3, 2019, in GN Docket No. 18-122, et al., p.4 ("the 3.45 GHz band is under NTIA review to consider federal-commercial sharing.") and attached Analysis Mason report, p. 32 ("The US is also studying the 3.45-3.55 GHz band…."); Letter from Scott K. Bergmann, CTIA, to Marlene H. Dortch, Secretary, FCC, filed Feb. 7, 2019, in GN Docket No. 18-122, et al., (attached report of the Analysis Group, at 1-2, identifying the "3.45-3.55 GHz" range as one of "two bands that policymakers are considering for commercial wireless use"); Comments of CTIA, GN Docket No. 14-177, filed September 11, 2018 at 3 ("…the forthcoming study of the 3450-3550 MHz band by [NTIA]"), at 6 ("CTIA reiterates its request that the Commission preserve the promise of this 100-megahertz swath of spectrum by adopting a freeze on the acceptance, processing, or grant of any non-federal applications in the 3450-3550 MHz band.").

consistently point towards confirmation that NTIA's current active review is limited to the 3450-3550 MHz frequency range.

## II. No Commenters Substantively Demonstrate That Grant Of The Requests Would Either Impede Or Foreclose Future Commercial Deployment, And In Fact The Very Limited Relief Requested Would Have No Such Impact And Is Supported By Ample Precedent

In the absence of any actual evidence, the opposing commenters rely on hyperbolic and conclusory language in their efforts to dissuade the Commission from taking very limited action to address very important homeland security-related issues. Such statements[34] are simply unsupported by any evidence and therefore should be afforded no substantive weight.

The grant of the relief requested by Dynetics would not result in the "blocking" of *any* services, much less the "blocking" of "all alternative uses of the band" as breathlessly claimed by WInnForum. The opposing commenters simply do not support these conclusory statements, nor are they credible on their face. Further, the past successful deployment of radiolocation service systems in the 3.1-3.3 GHz range[35] has shown that these systems can and will continue to co-exist on a shared basis with no risk of interference, and the secondary nature of radiolocation service in this band ensures that any issues that might conceivably arise would be promptly resolved in favor of primary use operators. Ultimately, any limited use of the pulsed, non-scanning, ground-based GroundAware® product within 3.1-3.3 GHz pursuant to the relief sought in the Requests, by only a select group of applicants, for only specified uses on discrete carrier frequencies, and subject to geographically confined deployment conditions, will substantially mitigate impact to, and therefore preserve, the surrounding RF environment.

[34] See "Grant of this waiver request would …negatively impact the future of this band" - WInnForum Comments at 2; "acceptance of the Dynetics waiver … could pre-emptively block all alternate uses of the band…" Id. at 2; "any deployed systems will present a significant obstacle" Id. at 3; "Dynetics is asking the Commission to put aside the nation's 5G goals" CTIA Comments at 5.

[35] See Request For Limited Waiver at 7-8; Request For Modification Of Freeze at 9-10; Southern Comments at 4-5.

Further, the relief requested in this case does not involve or impact the entire 3100-3550 MHz frequency range as erroneously suggested by WInnForum. Rather, the 3450-3550 MHz portion of the band - which as discussed above is (i) the portion of the band NTIA is actively considering for alternative use pursuant to the MOBILE NOW Act; (ii) the segment most closely aligned with global 5G deployment in the 3 GHz range, and which notably is the only segment that CTIA itself asked the Commission to Freeze last year in light of "NTIA's commitment" to that spectrum[36] – would be completely untouched and remain subject to the existing Freeze even if Dynetics' Requests are granted. Further, grant of the Requests would not open the floodgates to the licensing of "various systems". Rather, the relief requested has been deliberately and extremely narrowly-tailored to permit operation by only select eligible critical infrastructure applicants, operating solely within the confines of their property, on discrete carrier frequencies the number of which would be limited per location, subject to additional stringent oversight conditions.[37] In addition, any claim that the Requests seek to "put aside the nation's 5G goals" ignores the fact that potential 5G spectrum allocations – for a variety of uses - span across a very large portion of the entire RF spectrum overall – well beyond the 3 GHz range currently addressed in this case.[38]

Further, while failing to cite any precedent of its own, WInnForum ominously warns the Commission of the negative "precedent" that would be set by supporting critical infrastructure protection in furtherance of established United Stated homeland security policy. Suffice it to say that applicable precedent is in full accord with grant of the relief requested in this instance, as the Commission has repeatedly acted to waive or stay Commission rules to ensure that the unique

[36] Letter from Scott K. Bergmann, Senior Vice President, Regulatory Affairs, CTIA, to Marlene H. Dortch, Secretary, FCC, (filed Apr. 27, 2018).

[37] See, e.g., Request For Limited Waiver at 10-19.

[38] See White House Report at 48, Tables 6-8, showing "suitable spectrum ranges" throughout the RF spectrum for

interests of the critical infrastructure and public safety community are protected.[39] There is also ample precedent generally to support action by the Commission to approve a limited waiver of an application freeze when circumstances warrant, as they clearly do in this case.[40] Moreover, if the Commission decides to grant a waiver here, where the issues involve homeland security and protection of critical infrastructure, such an action by no means even remotely compels the Commission to grant a waiver in any other circumstances.

By failing to substantively counter Dynetics' factual and legal arguments and therefore having implicitly acknowledged that the public interest arguments presented in the Requests are

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use cases such as "5G eMBB", "5G URLLC", "5G mMTC".

[39] See e.g., Request For Limited Waiver, n. 29, citing: *In the Matter of Flint Hill Resources Pine Bend, LLC - Request for Waiver to License UHF Public Safety Channels in Minnesota*, Order, DA 19-67, WTB (rel. 2/8/2019) (granting waiver to permit operation on Public Safety Pool channels because "[r]eliable communication is essential for critical infrastructure industry entities" like the applicant); *In the Matter of ReconRobotics, Inc., Request for Waiver of Part 90 of the Commission's Rules*, Order, WP Docket No. 08-63, WTB and PS&HSB (rel. February 23, 2010) (granting waiver to permit equipment authorization and customer licensing under Part 90 to support the activities of state and local police and firefighters and security personnel in critical infrastructure industries); *In the Matter of The 4.9 GHz Band Transferred from Federal Government Use*, Order, WT Docket No. 00-32 (rel. August 2, 2004) (granting stay of rules in order to avoid "the unintended consequence of adversely affecting public safety and critical infrastructure operations…")

[40] *In the Matter of New York City Police Department, Request for Waiver of the T-Band Freeze*, File No. 0008188382, Order, PS&HSB (Rel. November 15, 2018) ("we find that in view of unique or unusual factual circumstances of the instant case, application of the Suspension Notice in this case would be inequitable to NYPD"); *Amendment of Part 90 of the Commission's Rules to Provide for Flexible Use of the 896-901 MHz and 935-940 MHz Band Allotted to the Business and Industrial Land Transportation Pool*, Order on Reconsideration, FCC 13-85 (2013) ("Accordingly, we conclude that the public interest would be best served by lifting the freeze in NPSPAC regions that are still undergoing the rebanding process, or that are still within the six-month period after completion thereof, for any application for new 900 MHz B/ILT service that includes written concurrence from Sprint Nextel."); *In the Matter of Third Periodic Review of the Commission's Rules and Policies Affecting the Conversion to Digital Television*, Report and Order, MB Docket No. 07-91 (2007) ("…this waiver policy should address many of the other concerns raised by commenters in seeking exemption from the freeze.); *In the Matter of Gateway Telecom LLC d/b/a STRATUSWAVE COMMUNICATIONS, Applications for New Educational Broadband Service Stations on the A and B Group Channels in Centerville, Ohio; and A and B Group Channels in Arden, West Virginia*, Memorandum Opinion and Order, (2007) ("We conclude that StratusWave has justified a waiver of the filing freeze under the second prong of the waiver standard because it has shown that applying the filing freeze would be inequitable, unduly burdensome and contrary to the public interest.); *In the Matter of Alexander Broadcasting, Inc., Station WRCR(AM), Spring Valley, New York, For Major Change in Facilities*, Memorandum Opinion and Order (2006) ("We agree with Alexander that the public safety issues it has identified are substantial and real… Therefore, we waive, to the extent indicated below, the AM expanded band major change application filing freeze announced in the AM Freeze Public Notice, AM Auction No. 84 procedures, and Sections 73.30 and 73.35 of the Commission's Rules to permit consideration of applications which would ensure adequate local radio service to this potentially at-risk population."); *In the Matter of Fisher Ranch, Application for Assignment of License and Modification of Private Land Mobile Radio Service Station WNXG464, Mt. Potisi, Nevada and Request for Waiver of Commission Rules*, FCC File No. C032585, Order, PS&PWD (Rel. January 14, 2002) ("grant of the requested waiver would not undermine the purposes of the inter-category freeze").

sufficiently compelling to grant the requested relief, the statements of the opposing commenters conveyed their primary purpose in opposing the Requests – namely, to ensure their members' unfettered financial gain at the expense of any other public interest consideration (including homeland security and the protection of critical infrastructure in this case). Indeed, in a rather remarkable moment of candor and with no evidence to support such a claim, WInnForum qualitatively (and quite erroneously) judges the use of spectrum for 5G to be a "higher and better use[] of spectrum"[41] as compared to the proposed use of a small segment of spectrum by a limited number of users, for the protection of critical infrastructure in furtherance of decades of United States homeland security policy. Dynetics finds it difficult to imagine how there is any goal higher than the protection of our nation's homeland security, and WInnForum's overreaching in this regard is unfortunate.

Similarly, CTIA's comments demonstrated that the primary factor it wishes the Commission to consider is to help large manufacturers and service providers win, at any cost, the "race to 5G"[42] While Dynetics understands the priority that the Commission has placed on the ultimate deployment of 5G, Dynetics trusts that the Commission will – unlike WInnForum and CTIA – deliberately examine the substantive evidence presented by Dynetics in its Requests, and evaluate such Requests based on their limited scope and narrowly-tailored conditions. Such sober reflection will allow for a conclusion that can both protect the interests of critical infrastructure operators and ensure the appropriate future deployment of 5G to the public. The bottom line is this – given all of the above, the ultimate deployment of 5G will be commercially successful regardless of what the Commission decides here – unfortunately the same cannot be said about the security of the nation's critical infrastructure.

[41] WInnForum Comments at 3.

[42] CTIA Comments at 2, 5.

## III. The Procedural Issues Raised By Opposing Commenters Are Not Only Unsupportable, They Also Demonstrate The Lack Of Substantive Opposition to the Requests

The reliance of opposing commenters on procedural items only serve to magnify the dearth of substantive grounds contained in their comments. Such issues can be quickly disposed of, as addressed below. As an initial matter, WInnForum implies there is some sort of issue with respect to the timing of Dynetics' Requests.[43] The tone of these comments demonstrate a concerning disregard to the class of users to be protected, and the seriousness of the national security issues presented in the Requests. WInnForum would seem to prefer that Dynetics artificially rush to submit an overbroad request for relief with little regard for the standards applicable to such Requests and the complicated facts and circumstances that apply here. In this case, Dynetics has, as expeditiously as possible, presented to the Commission a narrowly-tailored request for relief, thoughtfully and comprehensively presented in a manner that appropriately balances the requirements of the critical infrastructure community and the potential future commercial requirements in the 3 GHz band. The Commission should dismiss this criticism out of hand.

With respect to the primary focus of CTIA's comments, namely that the Request For Modification Of Freeze was untimely, this argument is contradicted by applicable precedent, as (i) the Commission has clear authority to act on that informal request for action pursuant to Section 1.41,[44] and (ii) there are no time limitations within which such requests must be filed, even when the filing of a petition for reconsideration was previously an option,[45] and the

[43] See WInnForum Comments at 2.

[44] The Request For Modification Of Freeze is indeed an informal request for Commission action, filed pursuant to Section 1.41 of the Commission's rules. An Erratum has been filed clarifying the rule section under which the Request For Modification Of Freeze was filed, namely Section 1.41.

[45] *Federal Communications Commission, Decision, Pacific Gas and Electric Company Request to Revoke the Grant of the License of Alon Shatzki for Trunked Industrial/Business Pool Radio Service Station WPMU363, Milpitas, California*, Memorandum Opinion and Order, 18 FCC Rcd. 22761, FCC 03-257 (2003); *Automobile Club of*

Commission routinely exercises its authority to consider such informal requests in situations such as the one presented here.

## IV. Conclusion

In light of the foregoing and the weight of the substantive comments supporting Dynetics' requests for relief, Dynetics respectfully reiterates its request for expedited approval of the Requests pursuant to the terms and conditions set forth therein.

Respectfully submitted,

**DYNETICS, INC.**

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*Southern California For Reconsideration of Dismissal of Informal Request to Rescind Grant of Station WPOZ617*, Order on Reconsideration, 16 FCC Rcd. 2934, DA 01-298 (PS&PWD; Released: February 6, 2001).